The Scholarly Article is Rebar

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So it begins. Actually, it began a while ago, but we now have a clear sign that it is happening. We are watching a disruptive innovation play out and this is what it looks like. Open access is disrupting paywalled subscription journals, or more generally openness is disrupting the artificial scarcity of controlled access to scholarly content.

I predicted several years ago that this would happen, at least the journal part.[1] While the data on the increase in the proportion of the literature that is Gold OA has generally indicated that my prediction is accurate, it is incomplete.[2] We now though have a new piece of evidence.

Surprising as it might seem, we can see this in Elsevier's acquisition of the Social Science Research Network (SSRN). Elsevier is doing what most established firms do when confronted with a disruptive innovation they move up market and make a better product for their established customers that they can sell at higher margins. At the same time the abandon the low end of the market where the disrupter has made advances. This part of the market has become commoditized and margins are harder to maintain. This pattern has been established and well documented by the business theorist Clayton Christensen. The best version of the story that has repeated itself often in any industries is the story of the steel industry and the disruption of integrated mills by mimimills.[3] Beginning with rebar in the mid 1960s mimimills entered the steel market. They had a less expensive process for making steel, but it could only, at the beginning, produce low quality steel. The established firms surrendered the low end markets as it became harder to compete in them and focused on higher quality higher margin products. But as often happens disruptive products get better and better. First mimimills won the rebar market, then bars and angle iron, then small I-beams, and eventually rolled steel. As the mimimills came to dominate each of these markets, the established integrated mills gave each up and moved to the next higher end product. They felt good about this as their overall margins increased. But at some point the high end ends and when that happened in steel, all of the U.S. integrated steel mills failed. As Christensen puts it, “But this is not a history of bungled steel company management. It is a story of rational managers facing the innovator’s dilemma. Should we invest to protect the least profitable end of our business, so that we can retain our least loyal, most price-sensitive customers? Or should we invest to strengthen our position in the most profitable tiers of our business, with customers who reward us with premium prices for better products?”[4]

What the Elsevier acquisition of SSRN shows us is that a similar dynamic is taking place with for-profit scholarly journal publishers as they are pushed by disruptive organizations using open strategies.

In his commentary on the SSRN acquisition addressing concerns about what Elsevier will do with papers deposited in SSRN, Christopher M. Kelly says, “I would suggest to SSRN users, though, that they have nothing to worry about. I don’t think Elsevier cares about the papers. God knows they barely care about the 2000+ journals they publish, other than *Cell* and a few others—a fact which is obvious to anyone who has published in an Elsevier journal, or edited one.”[5] Kelly argues that Elsevier values that SSRN has is data about the use of the content SSRN holds and what this says about the behavior of scholars. Kelly quotes the Elsevier press release, “Elsevier is actively linking data and analytics to its vast content base in ways no other potential SSRN partner can match. By connecting Mendeley, Scopus, ScienceDirect and its editorial systems, they’re helping researchers get a more complete picture of their research landscape. Institutions will also benefit with a better view of their researchers’ impact.”[6]

It seems to me that the market for scholarly journal articles has become the kind of low end commoditized market where maintaining high margins will be increasingly difficult. At least this is the case at the non-*Cell* low end of this market. There are funder mandates for deposit of manuscripts which provide an alternative for many users. Sci-Hub ceates another option, and though it is clearly illegal, it is hard to combat. It also seems that raising article processing fees at the same rate that subscription prices have increased will be difficult, especially when cheaper options like *PLOS One* or *PeerJ* exist. The market for individual articles is likely to be similarly constrained as individuals are much more price sensitive that libraries have been. The subscription journal article business, or at least large parts of it, is becoming a business with competitors with business models which allow them to offer lower prices which pressures margins and limits customer loyalty. Why compete here when there are better options.

The purchase of SSRN, and Mendeley before it, show that Elsevier is making investments in order to move up market rather than to invest in large parts of its journal business. The data analytic market has university customers who will, at least for now, pay high prices for services such as the SciVal tools and the Pure system. This is a great place to be. Elsevier can move up market and they will do so gladly.

After all, the scholarly article is rebar.

[1] David W. Lewis, “The Inevitability of Open Access,” *College & Research Libraries* 73(5):493-506 September 2012. doi:10.5860/crl-299, http://crl.acrl.org/content/73/5/493.full.pdf+html and https://scholarworks.iupui.edu/handle/1805/2929

[2] David W. Lewis, “The Inevitability of Open Access: Update One,” August 2013, https://scholarworks.iupui.edu/handle/1805/3471

[3] See: Clayton M. Christensen, Michael B. Horn, Louis Caldera, Louis Soares, *Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Postsecondary Education*, Washington, DC: Center for American Progress, February 2011, p. 15-17, https://www.americanprogress.org/issues/labor/report/2011/02/08/9034/disrupting-college/ and Clayton M. Christensen, *The Innovator’s Prescription: A Disruptive Solution to the Healthcare Crisis* (Cambridge, MA: MIT video, May 13, 2008), video, 1:27:38, http://video.mit.edu/watch/the-innovators-prescription-a-disruptive-solution-to-the-healthcare- crisis-9380/.

[4] Clayton M. Christensen, Michael B. Horn, Louis Caldera, Louis Soares, *Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Postsecondary Education*, Washington, DC: Center for American Progress, February 2011, p. 17, https://www.americanprogress.org/issues/labor/report/2011/02/08/9034/disrupting-college/

[5] Christopher M. Kelly, “It’s the Data, Stupid: What Elsevier’s purchase of SSRN also means,” *Savage Minds: Notes and Queries in Anthropology* [blog] May 18, 2016, http://savageminds.org/2016/05/18/its-the-data-stupid-what-elseviers-purchase-of-ssrn-also-means/

[6] Gregg Gordon, “SSRN—the leading social science and humanities repository and online community—joins Elsevier,” May 17, 2016, https://www.elsevier.com/connect/ssrn-the-leading-social-science-and-humanities-repository-and-online-community-joins-elsevier